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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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S-E-C-R-E-T

COUNTRY Hungary

REPORT

SUBJECT

1. Hungarian Army River-Crossing Tactics
2. Mission of the Engineers in River-Crossing Operations

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two reports concerning pre-Hungarian revolt (October/November 1956) river-crossing tactics of the Hungarian ground forces:

1. A report describing river-crossing tactics (17 pages). The report includes the following sketches and charts:

   a. Chart showing units engaged and engineer equipment employed in a river-crossing operation.

   b. Sketch showing the deployment of units for a river-crossing operation.

   c. Sketch of the area of the river crossing, showing locations and sizes of bridges, line of departure, and routes to be followed by units involved in the crossing.

   d. Sketch of the area of the river crossing, showing locations, sizes, and spacing of bridges, and the route to be followed by the military bridge column.

   e. Sketch of the area of the river crossing, showing the spacing of the assault boats to be used.

2. A report describing the mission of the engineers in a river-crossing operation (13 pages). The report includes a chart showing the engineer units to be used in a river-crossing operation. The report also includes a chart (two sheets) showing the vehicles and equipment of an obstacle-laying detachment.

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9

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The Execution of Attack Combined With Forced River Crossing

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I.

Nature of Attack

The tactical principles employed in the Hungarian Peoples Army were prepared on the basis of Soviet military regulations. Soviet military principles were turned over to the Hungarian army in 1950. The military institutes and schools taught the "wonderful Soviet military science" in the form of printed matter. Beginning in 1951, the new regulations began to appear among the troops and at institutes and schools. The first publication of the regulations wasn't clear and there were numerous errors in terminology which resulted from misinterpretation during translation. Subsequently, it was the duty of Soviet military advisers to explain and carry out the teaching of these regulations. Thus, at all higher units, institutes, and schools Soviet advisers were integrated into the translation department along with Hungarian officers and interpreters.

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it necessary to make known briefly the tactical principles of the Soviet army, and its application in the Hungarian People's Army.

The principal method of combat of the Hungarian People's Army is the attack. According to the regulations, defense is merely a transition for the attack -- the consolidation of those troops or forces in the desired direction and, at the precise moment, the annihilation of the enemy by attack. Thus, we can say that if a unit is on the defensive and is executing a counterattack, it is nothing more than transition for the attack.

What Assures the Success of an Attack

1. The skillful camouflage of the troops
2. Reconnaissance of the enemy:
   a. by reconnaissance in force
   b. from prisoners
   c. from data obtained from the populace
   d. through spies
   e. supplementary information from adjacent units
3. The rapid and concealed movement of troops
4. Good utilization of the terrain
5. The training commanders and officers

6. The political and moral condition of the troops
7. The soldiers' tenacity and training
8. Technical status and combat training
9. Supply security

Methods of Attack

1. Frontal assault for a breakthrough
2. Penetration
3. Envelopment

The Frontal Assault for a Breakthrough

The frontal assault is executed by larger units (corps or army); thus, requiring the concentration of powerful forces and equipment into a small sector, which is the decisive factor on the outcome of an entire military operation. The frontal assault is directed by the commander of the front (army). The mission is to break through the determined defense of the enemy; to snatch further success from the hands of the enemy, turning it to friendly advantage; to inflict heavy losses and the complete annihilation on the enemy; and to execute the military operation successfully. The frontal attack is executed with the utilization of all weapons. The tight organization and guidance of /an attack/ is a very important requirement. A military operation of this kind assures results only if we can immediately commit fresh forces into the breakthrough area: the gains must be further deepened and widened in all directions. The coordination of infantry, airplanes, and artillery is essential. In the interest of deepening the penetration as well as for repelling a possible enemy thrust, after the third position breakthrough the "deszant" troops earmarked for the second echelon are immediately sent in to prevent the counterattack attempts of the enemy. (Sketch No. 1) Then, from the frontal attack originates the second phase of the attack -- envelopment and /or/ outflanking.

Envelopment

The successful execution of the frontal attack brings about the envelopment swing out and with an enveloping movement they encircle and capture the enemy. The troops which execute envelopment fight independently. (Sketch 2)

Outflanking

Outflanking is the third form of attack. It is employed when the flanks and contact of the enemy units are weak. The troops executing the outflanking maneuver are in contact with one another. The security of the flanks is an important requirement so that the enemy will not be wedged in between the troops executing the outflanking maneuver (Sketch 3)

Enveloping

In enveloping, the troops executing the envelopment are in contact with each other. They capture or annihilate the encircled enemy. Heavy artillery fire is employed for protecting the higher units which execute the envelopment. The primary mission is to protect the flanks and unit contact.

Flanking

Flanking is executed if the frontal attack is successful, if the enemy's main line of defense has been broken through, and if the attack is underway against the second line of defense -- then one division circles out and the enemy is annihilated by envelopment. In all instances the flanks must be protected.

Schedule for Organizing Attack

Time calculations

Execution of reconnaissance

Evaluation of situation

Clarification of the mission

Preliminary decision

Conference of the commanders of the service branches

Announcement of the decision

Issuance of operations order

The execution of inspections

Time Calculations

The commander will fix the time for the various missions. He fixes the reckoning of time in 40 minutes.

The Execution of Reconnaissance

Reconnaissance is carried out at dawn. It is led by the commander personally along with the military operations officer, the chief of staff of the branch commanders, the reconnaissance officer, and the

commanders of the attacking troops on that sector. Reconnaissance is carried out according to the already fixed plan. The reconnaissance takes place from positions at the designated time. According to regulations, 3 hours are reckoned for reconnaissance. Reconnaissance takes place from 3 or 4 positions.

Evaluation of Situation

After the reconnaissance, the commander evaluates the situation on the basis of the reconnaissance and arrives at his decision accordingly. All the branch commanders are present in evaluating the situation, and they advise the commander. The basis of the decision is the evaluation of the situation - the success of the attack depends upon this.

The Evaluation of the Situation Includes:

1. Enemy Situation: deployment, defense base of operations, and strength.
2. Identification of troops to be encountered
3. Defensive build-up
4. The points of contact and their security
5. Deployment of reserves
6. The location, strength, and support weapons of the second echelon
7. Which bases the isolation of which would assure success
8. Command and observation posts
9. The system of defensive fortifications
10. The time of changing of troops

1. Friendly Situation:
2. Build-up of the attack (one-phase or two-phase)
3. Deployment of troops
4. Personnel and material strength and tactical disposition
5. The deployment of the second echelon, personnel and materiel strength and commanders
6. Tank and artillery deployment and strength
7. The system of advance, number of roads
8. System of camouflage
9. Supply security
10. Time for firing preparation

Clarification of the Mission

The evaluation of the situation is a sub-section of the clarification of the mission. The commander now clearly sees the situation, so he establishes /the mission/. He issues the preliminary instructions to his subordinates, the order in which the missions are to be executed. The clarification of the mission contains the following:

1. Enemy situation
2. Friendly situation
3. Troop deployment
4. Deployment of the second echelon
5. Road and bridge construction
6. Concealment
7. Water supply
8. Supply security

In the clarification of the mission, the commander doesn't go into details but determines the extent of the missions of those under his command. The details are worked out jointly by the chief-of-staff operations officer, the reconnaissance officer, the chiefs of the service branches, and the troop commanders (regiment, division) under his command.

Preliminary Decision

The attack situation has now crystalized before the commander. On the basis of this, the preliminary measures for the attack get underway. What the commander has written out, he now sketches on a map; he prepares the situation map. Later, from this the branch commanders also draw in their situation maps.

Content of the Situation Map

1. Enemy Situation: (on the basis of reconnaissance data)

   The extent of defense fortifications

   Equipment and support bases

   Location and security of contacts

   Command and Observation posts

   Location of artillery positions

   Location of reserves

   Location and strength of second echelon

   Supply arrangements

Location of chemical detachments

Locations of firing positions

Supply bases (ammunition, explosives)

Concealment possibilities

Routes of advance

Signal plan

Location of radar stations

2. Friendly Situation:

The order of battle organization and deployment of attacking troops

Assembly area

Departure area

Assault area [line]

Deployment and strength of the second echelon

Location of command posts

Organization and deployment of adjacent units

Deployment of second echelon

Location of reserve tanks

Deployment of subordinated direct [support units?]

Supply security

Routes of advance to the river

Concealment possibilities

Location of water points

Chemical detachment areas

Conference of the Commanders of the Various Branches of Service

The chiefs of the various branches of service aid the commander in formulating the decision. From a professional point of view, they supply supplementary advice on the supervision and organization of various movements. The branch of service chiefs report on the capability and combat readiness of the troops of their respective branches. On the basis of this, the commander decides which troops he should place in the first or second echelon and what the artillery is capable of during the attack.

After these reports, the commander arrives at his decision. He fixes the mission on a map only after the organization of the attack has proved feasible on the map table. The coordination of the various troops is organized on the map table, and the operations officer puts it in writing.

The following are present at the map table: the commanders of the adjacent divisions, the division commander, the troop commanders under his command, his chiefs of staff, the operations officer division chief of staff, chief of artillery, chief of armor, chief of engineers, chief of chemical warfare, quartermaster chief, division surgeon, chief of signal, and the air force commander that will support the troops.

Announcement of the Decision

After the coordination at the map table, the commander delivers his verbal decision. Here, he issues attack orders in the form of instructions. Each commander receives verbally his attack orders, which he sketches on his map.

Issuance of the Combat Order

After the discussion at the map table, the troop commanders return to their troops. They then inform their subordinate commanders about the decision of the division commander. After this, the division staff drafts the combat order which is issued to the troops.

Contents of the Combat Order

1. The time of military operations
2. Enemy situation
3. Friendly situation
4. The position of the adjacent units
5. Troops in the first echelon
6. The second echelon
7. The position of artillery units
8. The location of reserve armor
9. The position of anti-aircraft artillery [AAA]
10. The location and mission of M.B.O. [Mozgásbiztositó Osztag, Movement Security Detachment], and the M.Z.O. [Muszaki Zartelepito osztag, Obatacle Laying Detachment] - (See pp. 63-64, and 65-68 below.)
11. Location of command posts
12. The location of the anti-tank [AT] artillery reserves
13. Supply security
14. Signal plan
15. Location of message collection stations
16. Reports system

Execution of Control

Control is limited exclusively to control of the execution of the missions issued. It is the task of the staff of the next higher units to see that the commands, designated in the combat order, be fully executed.

Attack Front (Normal front)

Rifle Platoon	Width and Depth of front	25 - 50 Meters
Rifle Company	" " " " "	150 - 500 "
Rifle Battalion	" " " " "	800 - 1,000 "
Rifle Regiment	" " " " "	1.5 - 2 km.
Rifle Division	" " " " "	4 - 6 "
Rifle Army Corp	" " " " "	8 - 12 "
Rifle Army	" " " " "	24 - 30 "

Attack Missions

To establish the pace at which the enemy is to be annihilated, the attack is fixed by the missions which the division commander determines for the troops under his command. It is the strict responsibility of all commanders to abide by these missions. A possible failure /to do so/ results in a loss since it yields ground to the enemy. In the event of a possible failure, aid must immediately be requested from the commander of the next higher unit. There are instances when an enemy strongpoint ties down the attacking unit - in a case like this, its reserves must immediately be employed in the interest of the division attack.

Division Missions

Immediate mission:

Capture the enemy's second position or get to the position of the regimental artillery units.

Subsequent mission:

Capture the enemy's third position and take possession of his main defense zone.

Day's mission:

Getting to the enemy's second main defense zone and annihilating the enemy within the zone, obtaining prisoners, and neutralizing the artillery.

Attack Combined with Forced River Crossing (Engineer section)

Objectives of the Preparatory Period

Placement of the troops in the assembly area

The equipment of the assembly area

Training drills for the engineer units

Reconnaissance of the river

Preparation of the advance routes

Preparation of the documents related with the crossing

- the crossing chart
- the crossing schedule
- engineer reconnaissance plan
- strength deployment plan
- supply distribution plan

Preparation of the crossing supplies

Preparation of the departure area

Preparation of the line of departure [LD]

Engineer Missions Associated with the Attack

1. Execution of engineer reconnaissance
2. Technical preparation of the assembly area
3. Organization of assault groups for reducing fortifications
4. Organization of M.Z.O. [Obstacle Laying Detachment].
5. Technical security of artillery units
6. Preparation of command posts
7. Technical equipment of training areas
8. Organization of groups for removing obstacles
9. Organization of M.B.O. [Movement Security Detachment]
10. Equipment of the departure area
11. Preparation of equipment needed for crossing
12. Organization of water supply
13. Road and bridge construction
14. Camouflaging
15. Supply security

The organization of the river crossing is essential for the further execution of the attack. The commander strictly demands from the engineer commander, the rapid, timely, and smooth crossing of the troops. The transportation, of the advanced detachment, to the opposite shore is a very difficult task on

the part of the "gyeszant" sub-units. The coordinated fire of the infantry and artillery assures the seizure of the bridgehead by the advanced detachment. When the artillery lays its fire on the second and third position, then the advanced detachment shoves off from the near shore. By rapid paddling or in large assault boats and under the cover of raking artillery fire, they reach the opposite shore, where with short preparation and with great force they break through the first enemy trenches and neutralize the remaining enemy to establish a bridgehead. If the enemy has superior forces, the commander of the next higher unit sends in planes to overcome the superiority. As the advanced detachment gets established, the transportation of the first echelon gets underway. The advanced detachment should cross the river at Cs-10'. The time for the beginning of the construction of ferryboats is Cs-20'. The time for beginning the bridge construction is Cs- 2 hours, by which time the troops must accomplish the immediate mission and pursue the withdrawing enemy. In the event that enemy planes endanger the bridge and the crossing sector, a smoke screen must be ordered immediately on a 3 x 2 kilometer sector. The engineer reserves are located 4-5 kilometers from the river and are dug in against enemy artillery.

The strength of the advanced detachment depends on the following:

the strength of the enemy
the defensive equipment of the enemy
the number of supporting artillery pieces
the number of enemy positions

The composition of the advanced detachment is determined personally by the commander of the next higher unit and he directs the combat. The best trained and most determined rifle battalion commander, who can adapt himself to all conditions and direct the combat of the advanced detachment, must be named as the commander of the advanced detachment.

Composition of the Advanced Detachment

1 rifle battalion

1 engineer platoon

1 chemical warfare squad

1 artillery battalion

1 tank company

1 signal platoon

1 reconnaissance squad

The advanced detachment takes its weapons along on the crossing vehicle. The artillery and tanks which support the attack from the near shore will be transported beginning at Cs-20. The crossing vehicles of the advanced detachment remain on the far shore.

Preparation of the Assembly Area

The division commander gives instructions as to the preparation of the assembly area. The assembly area is located 12-15 kilometers from the river, generally in a wooded area which affords concealment. The troops proceed to the assembly area under the cover of darkness on the route designated by the division commander. Upon arrival, the advance forces and the engineer [units] must dig in immediately.

Assignments in the Assembly Area

1. Contact with the higher units
2. Undertaking the digging in
3. Organization of combat security
4. Preparation and presentation of the combat readiness report
5. Sketch of the troop deployment
6. Organization of signals (air-raid warning, gas attack warning, etc.)
7. Dissemination of reports

On reaching the assembly area, the troops undertake the digging in operations. The tents must be sunk into the ground entirely. Three-quarters of the vehicles [word illegible] must be underground and long inclines constructed so that they can move out from the cover. Each squad has zig-zag trenches that are 6 meters long, 1 meter wide, and 1'5 [meters] deep. " ~~~ "
Roads leading to the assembly area are closed by tanks, mines, or patrols. The guards are established in front of the command area. The explosives and ammunition are located 500 - 800 meters from the troops, where the supply dump is established. The companies are located 800 - 1,000 meters from one another. For the security of the staff, one of the sub-units is established for direct defense. The next higher unit's commander issues the cover schedule and signals for duty. The preparation of the assembly area is carried out by the troops under the supervision of the division engineer chief. Its lighting as well as its security (tanks, mines, wire fences) are supplied by the division engineer troops. It is the duty of next higher units to organize contact with the units under its command.

Preparation of the Training Area (Sketch #5)

Two or three training areas, of division proportions, must be prepared for the engineers as well as the other troops. It is in these areas that the troops which will execute the crossing, practice the execution of the river crossing. Those engineer and rifle troops which will serve as the advanced detachment, must conduct 3 - 4 hours of training daily in order to become completely familiar with their mission. The training is conducted by the commander of the rifle regiment. The dimension of the training area is determined by the /size ?/ of the nearby lake or river. Here, fortifications patterned after those of the enemy are set up. Special fortification assault troops are organized and the training is carried out.

Reconnaissance of the River

Reconnaissance is carried out by the following persons under the leadership of engineer chief of the division:

Commander of the engineer troops
Commander of the advanced detachment
Commanders of the rifle regiments
Commanders of the engineer companies

The reconnaissance covers the following:

1. Width of the river
2. Speed of the river's current
3. Shore conditions
4. Cover and concealment
5. Roads leading to the river
6. River bends in our direction
7. Dominating elevations
8. Conditions of the opposite shore
9. Selection of bridge site
10. Selection of alternate bridge site

What is the "Deszant" Crossing Sector?

The crossing sector is prepared for the river crossing of the division. The crossing sector consists of the following:

Crossing point (necessary equipment for crossing)
Ferry crossing site
Bridge crossing site

The width of the crossing sector is 5 - 6 km.

The width of the crossing point is 250 meters.

The width of the ferry crossing is 800 meters.

The width of the bridge crossing is 400 meters.

In all cases, the bridge crossing site must be prepared and the engineer reconnaissance executed so that, if necessary, a bridge crossing can be carried out within the shortest possible time. A rescue section must be organized for each crossing point.

The equipment of the rescue section is as follows:

1 assault boat or (A.V.M. motor boat)

1 medical first-aid kit

1 stretcher

2 life preservers

1 life-saver (swimmer)

Personnel:

1 surgeon or aid man

1 leader

1 mechanic

1 automatic rifleman

1 lifeguard

In addition, guards must be set up at the upper and lower sections of the river. It is the guard's duty to prevent the water mines from being washed away and to keep enemy reconnaissance away from the area. They must detonate water mines before they damage the bridge. The guards are established 1.5 - 2 kilometers to the right and left of the bridge.

The equipment and strength of the guards is as follows:

1 - "A.V.M." [a kind of motor boat?]

1 - assault boat

1 - rubber boat

2 - 120-mm mortars

1 - 45-mm AT guns

2 - machine guns

First-aid equipment

2 - radios

1 - set of mine detectors and detonating equipment

3 - sets of mine [curtains ?]

Binoculars

Personnel:

1 officer and 1 platoon

Radio and telephone communication is maintained.

Engineer Equipment of the "Deszant" Crossing Point (Sketch #8)

The total crossing points comprise the crossing sector. The commander of the crossing point is an engineer company or battalion commander. The division engineer designates the crossing point and the number of sites. The preparation of the crossing point depends on the quantity of available crossing tools and on the number of troops and tools to be transported.

According to Regulations the Crossing Point Consists of the Following:

2 - small rubber boats

2 - medium rubber boats

2 - large rubber boats

8 - assault boats

1 - first-aid station (with assault boat)

6 - DSZL [?] barge (T [?])

The preparation of the "deszant" crossing point must be carried out at N-1 [?]; at N-3 [?] the engineer materials must be transported from the assembly area to the departure area under the cover of darkness. At dawn, at N-2 hours, without the use of motor vehicles, the combatants must transport the materials to the front line and dig it in a concealed place at a distance of 50 - 70 meters from the obstacle [river ?]. Numbers must be written on all crossing devices so that the infantry will know which vehicles to use for the crossing. The numbered chart is placed in a conspicuous place on the crossing vehicle. A route must be traced from the departure area to the front line and must be marked with numbered signs to facilitate night-traveling. The signs should be white with colored markings. Upon arrival at the departure area, all crossing devices should be dug-in immediately to protect them from enemy artillery. From the departure area, the crossing devices are moved to the front lines at the beginning of the attack during the last ten minutes of artillery fire, when the artillery fires its rolling barrage. For the purpose of orientation numbered charts are placed at the location of all crossing devices.

Equipment of the First-Aid Station

A fully operational first-aid station must be equipped at all crossing points. It must be equipped with land and water vehicles. Its mission is to move among the crossing vehicles and to render immediate aid to the injured. Damaged vehicles must be replaced with reserve units which are in readiness on the shore.

The Organization and Execution of the "Deszant" Crossing

The troops occupying the assembly area are equipped and prepared for executing the river crossing. The staff of the next higher unit and the engineer chief work out the plan for executing the crossing and fix the execution of the various missions. In the assembly area, the first echelon and the advanced detachment which will participate in the crossing make a dry run in the training area according to plans which are similar to those which it must execute under actual conditions. Upon the completion of the staff work, a supplemental reconnaissance is conducted with the staff of the division commander and separately with the commander of the engineer chief concerned; this takes place at N-3 [?] in the late afternoon hours. At N-3 [?], with the coming of darkness, the division begins its advance towards the river along the route designated. Maneuver may be executed only in the event of adverse conditions. The units get established at the approach points determined by the division commander and immediately carry out the assignments they performed at the assembly area. To avoid detection, the division advances from the assembly area in several echelons. During the advance, the motor vehicles may approach with dimmed lights and covered cabs. The division commander sets forth regulations on the use of lights.

The troops reach the obstacle in consecutive advances. The advanced detachment and the engineer troops occupy the LD at N-1 [?] dawn, and they see to it that the attacking forces are operational at Cs-5. The engineer unit prepares the crossing points by use of the advanced detachment; they set-up the sign charts; transport the supplies forward to the departure area and dig it in. The bridge material moves forward with the staff only under the artillery's fire and moves to a concealed area (forest) at the departure area. The artillery and the AT weapons occupy a selected area concealed from the river and prepare to provide artillery support. At Cs-20 the division commander signals the beginning of the attack by firing a signal flare.

At this time, all the infantry and artillery weapons concentrate their fire on enemy positions.

The Artillery Fire Consists of the Following (in the event of 20' fire):

Concentrated fire	10'
Heavy barrage fire	5'
Moving barrage fire	5'
Normal fire	continuous

The Mission of the Artillery

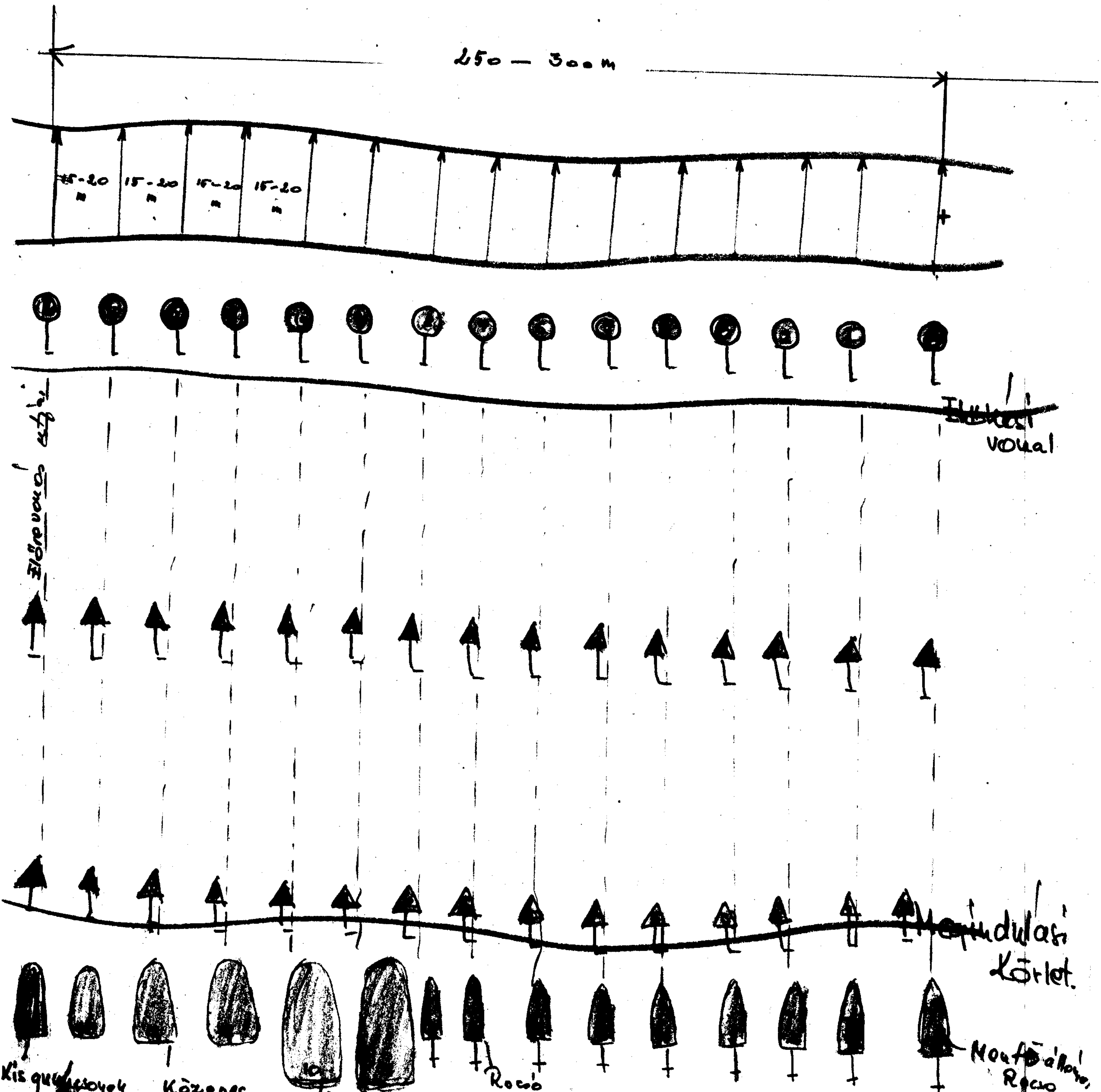
1. Destruction of the enemy's front units
2. Destruction of its firearms
3. Disruption of the enemy fire plan
4. Destruction of strongholds and observation points.
5. Destruction of command posts
6. "Blinding" of its artillery
7. The destruction of firearms and strong points in the front line trenches
8. Force the enemy to retreat
9. Protection of its own forces in the execution of their tasks

With the beginning of artillery fire at Cs-5', the advance detachment and the "gyeszant" [?] unit embarks and by the effective utilization of fire and coordination with the infantry it crosses the river and digs in to establish a bridgehead. Then the first echelon crosses on this assault sector. The mission of the weapons located on its own shore is to immediately destroy renewed enemy fire.

At Cs +10' the engineer troops begin to transport the ferry materials from the departure area to the water, and at Cs +20' they begin to assemble the ferryboats. Then, at Cs +40' the ferryboats begin to transport the artillery weapons and tanks across the river for direct support of the advance section on the opposite shore. At Cs +30' the military bridge section begins its advance toward the river and at Cs +40' begins the construction of the division bridge. Now, according to the crossing schedule, the troops flow across the river, press the attack, and reach the immediate objective, where they get established and organize their forces.-- this may be a maximum of 25' -- and the rhythm of the attack continues. The bridge is in operational condition at Cs +4 hours. Now the bulk of the army, the second echelon, the main body of the division also begins to cross the river.

v. n. vázlat.

A deszant átkelési pont műszaki berendezése. LSZ.



Preparation of the Division's "Deszant" Crossing Sector

Legend

Deszant Crossing
40 ton — Ferry
30 ton + Bridge (Iron)
Reserve Bridge Location
60 ton — Ferry

5-6 kilometers

800 meters

"Move-off" line

No 2.

No. 1

Departure Area

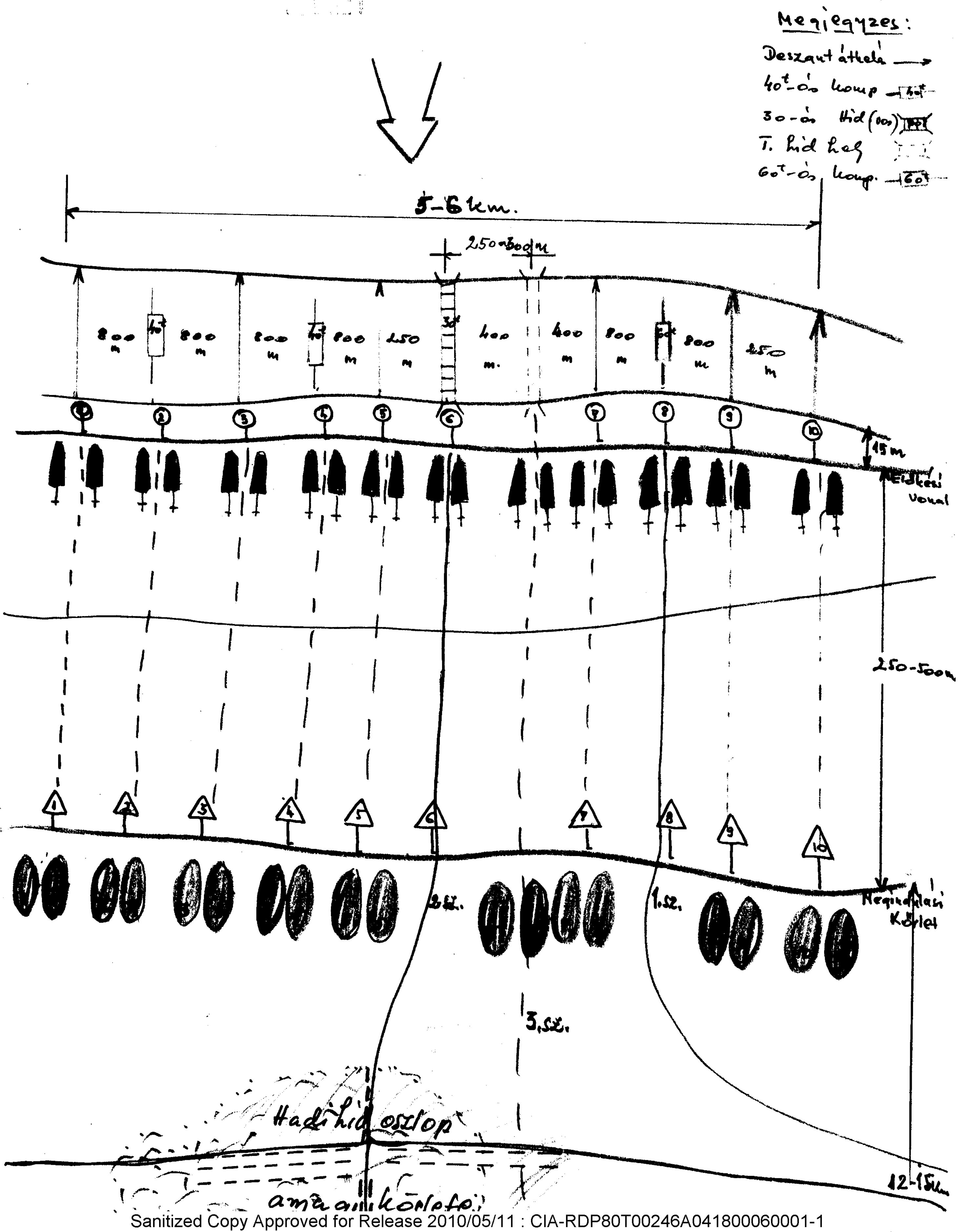
No 3

Military Bridge Column

Supply Zone

12-15 kilometers

Hadosztály Deszant átkelési szakasz berendezése.



Sketch of 1c Crossing Sector

115th Infantry Bn.

74th Infantry Bn.

223 Infantry Bn.

30 ton

30 ton

30 Ton

65 Ton

Sign markers

No. 10

No. 1

5th Engineer Bn.

Dug-in and camouflaged Crossing vehicle

[redacted]

Bridge material dug in and camouflaged

[redacted]

"Elokési" line*

Departure area

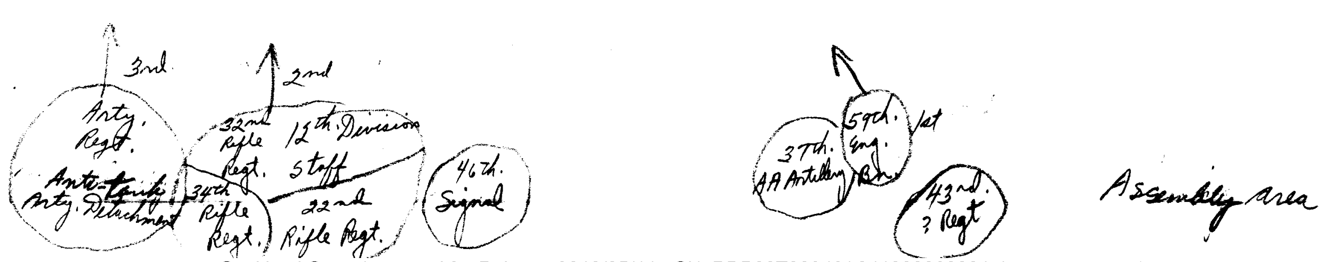
[redacted]

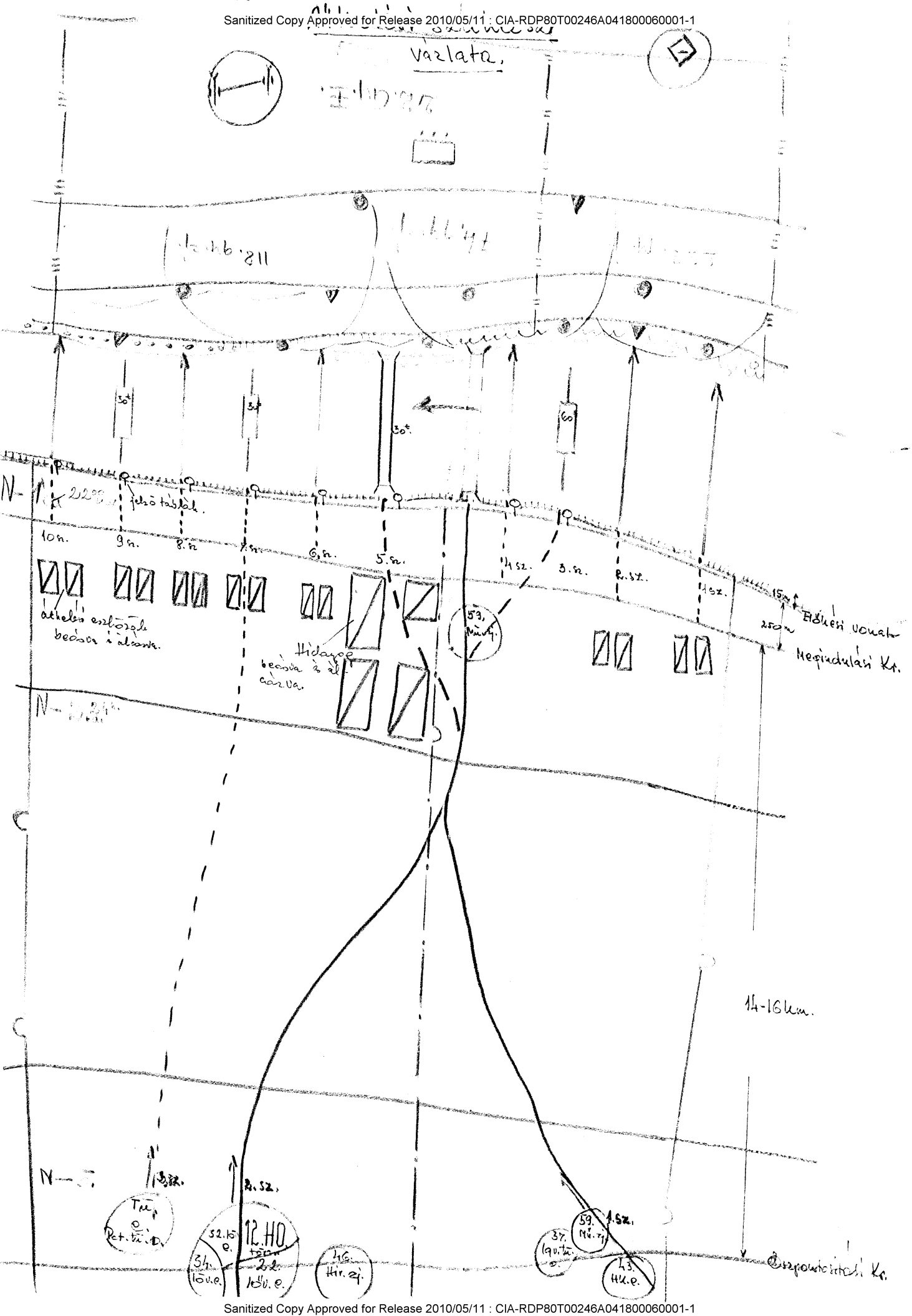
[redacted] [redacted] [redacted]

*[Probably should be "ellökési" meaning "shove-off" line.]

[Translator's Note: the abbreviation "sz" could mean "platoon," "sector," or "number;" probably means "number" herein.]

14-16 km.





"Gun-around" number
Number 2 crossing point
"Gun-around" -

Plan chart - ~~Map and Crossing Point~~ Sketch

Extract from the Divisional crossing chart

Heavy machine-gun Co.

82 mm.

120 mm.

Regimental artillery 76 mm.

Regimental AA battery 37 mm.

~~S Regt Co~~ 76 mm.

Tank Co 76 mm.

Note

1st Bn 2nd Bn 3rd Bn

3 units rifle Bn.
9 " " Co.
1 " machine-gun Co.
3 " 45 mm. AT Gun platoon
12 units

1 Regiment battery 120 mm. 4 units
1 Mortar Co 82 mm. 9 units

1 battery 76 mm. 4 units

1 AA battery 37 mm 4 units

~~S Regt Co~~ 76 mm. 4 units
1 Tank Co. 76 mm. 4 units

Signal Eng. Co.
Co. P Squad

1. 12

2 4

3 2

4 21

5 8

6 1

7 1

Sample

Az 2.sz. komp átk. pont tervező láda... [illegible] a 2.sz. átk. grafikonból. — Vázlat

Fsz.	2.sz. átk. pont. Fodulok számai.	1. (gpk. szd.; K, D, C 1.zj.; H, E 2.zj.; G, F 3.zj.)	2. (82% av.; 120% av.)	3. (E.tüz. 76% á.)	4. (E.lgv.á. ü. 37%)	5. (Rdg. ü. 76%; Htk. ü. 76%)	6.	7.	Megjegyz.
1.	12,	3. db 18v. zj. 9. db " szd. 1 db gpk. szd. 3. db. 45% pct.á. sz. 12 db.	1 db. E.ü. 120% 4db. 1db. av. szd. 82% 9.db.	1.db. á.ü. 76% 4.db.	1.db. lgv.á.ü. 37% 4.db.	1 db. Rdg.ü. 76% 4db. 1db. Htk. ü. 76% 4 db.	Hír.szd.	Mű. szd. Üv. raj.	
2.	4.								
3.	2.								
4.	2.								
5.	8.								
6.	1.								
7.	1.								

Minta.

~~No 5~~

~~No 6~~

~~No 7~~

Sample

~~No 8~~

~~No 9~~

30 ton

Prepared in 3 copies
Copy 1 - Chief, Division Engineer
" 2 - Division Engineer Bn.
" 3 - Division's "T" officer
~~Prepared by: Engineer chief, 1st of Rifle Division~~

Cs Sequence
No 1 Copy

"Cs" +

20 sec. 40 sec.

1. hour

After the ferrying of the advance detachment is completed, the 34th Rifle Regiment begins to cross. The regimental staff crosses on the bridge beginning at Cs 42.

Note

The "advance detachment ferrying at Cs-10.

Commencement of the building is Cs +20 sec.

operating

Sample

operating

Branch of Service Commanding ~~Crossing chart of the 12th Rifle Div.~~ Kalocsa Danube

Organization of the Crossing troops

Vehicle Numbers	34th Rifle Regt.	32nd Rifle Regt.	25th Rifle Regt.	Artillery Regt.	43rd Tank Regt.	12th Div. Staff AA Arty	Vehicles [means] Equipment	Crossing Point Commander
No 1	~~Reserve Detachment~~ 320? Skiffel troops 82 mm. mortar section 1 machine Gun Co. 1 Engineer Co. 1 Signal Co. 1 Chemical? Squad 1 ? mortar Btry.						2 amphibia [??] 6 assault boats 2 "AVM"? motor boats 2 Small Rubber " 2 medium " " 2 Large " 2 "DS2L"? barge ½ 1 "T-250" Tractor	Miklos Nemet Lt. CO, 59th Engineer Bn. 1/1
No 2	3rd Bn. 8 Rifle Companies 2 Machine Gun Companies 3 mortar Sections, 82 mm. 1 anti-tank mortar Btry. 45 mm 2 tank companies 1 SP Gun Company Regt. Btry " staff 1 AA mortar Btry.						2 "N2P"? 1-ton Jerry 1 amphibia [??] 2 assault boats 1 "AVM" motor " 1 small rubber boat 1 medium " " 1 Large " " 2 "D.S.2.L." barge ½ 1 Tractor	Lt. Jozsef Szitta CO, 59th Engineer Bn. 1/2
No 3		1st Rifle Bn. 2nd " " 3 machine Gun Co. Signal Co. Regt. ? Squad					2 amphibia [??] 6 assault boats 2 "AVM" motor " 2 small rubber " 2 medium " " 2 Large " " 2 "D.S.2.L." barge ½ 1 Tractor	1st. Lt. Janos Horvath CO, 59th Engineer Bn. 1/3
No 4		32nd Rifle Regt. Staff Regt. Arty.	Arty. Regt. 1st and 2nd Btry.			12th Div. Stf. AA Arty Det. Signal Bn. Recon. Co.	"N2D" military Bridge 1/3 "N2D"? 2 "A.V.M." motor Boats 4 Rescue " 2 Tractors	Maj. Janos Bednar? CO, 74th Engineer Bn.

...: [illegible]
...: [illegible] ho. pk.—

A.12.18v.ho. átkelési grafikonja Udocsa D.

Készítette: Szilli Ferenc hd. műsz főnök

"Szigorúan titkos!"

"Titkos! Cs. osztály. 1. sz. példány."

Eszközök száma:	Átkelő csapatok megosztása: 34.18v.e.	32.18v.e.	25.15v.e.	tü. e.	43.hk.e.	12. ho. törzs. 19x tü. o. hir. zj. feld. hd.	Átkelési pont eszközei; berendezése.	Átkelési pont pk-a.	Cs.+ 20' 40' 60' 80' 1.o. 20' 40' 60' 80' 2.o. 20' 40' 60' 80' 3.o.	Megjegyzés.
1.sz. →	Ezog: ho. fő. felszerelés 82 % av. hd. 1. gpu. hd. 1. mű. hd. 1. hir. hd. 1. Vd. raj. 1. 88 sz. sz. ll.						2 db. autóbusz 6 db rohamcsónak 2 -"- ÁVH. mosó 2 -"- kis gumicsónak 2 -"- közepes -"- 2 -"- nagy -"- 2 -"- DSZL. kadik 1 -"- traktor /T-250/	Német Miklós hdgy. 59. mű. zj. 1/1 pk.	Az ezog. átszállítása után a 34.lőv.e. átkelőt megkezdi. Az. e. törzs. a hídon kell át Cs+ 2. tól.	Az ezog. Cs-10 kor kezdi meg az átkelést.
2.sz. [40']	3zj-a: 3.15v. hd. 1 gpu. -"- 8 av. hd. 85 mm 1. 45 mm pct. ü. 4 db hk. hd. 1 db. rdg. hd. E. ütegy. E. törzs. 1. 19 x á. üteg.						2 db NZP. Komp 1.1.T. 1 db Autóbusz 2 -"- rohamcsónak 1 -"- ÁVH. mosó 1 -"- kis gumicsónak 1 -"- közepes -"- 1 -"- nagy -"- 2 -"- DSZL. kadik 1 -"- traktor.	Szilla József hdgy. 59. mű. zj. 1/2 pk.	Működik	Építés kezdete Cs+ 20'-tól
3.sz. →		1. lőv. zj-a. 2. 18v. zj-a 3. gpu. hd. hír. hd. E. törzs.					2 db autóbusz 6 -"- rohamcsónak 2 -"- ármi. mosó 2 -"- kis gumicsónak 2 -"- közepes gumicsónak 2 -"- nagy -"- 2 -"- DSZL. kadik 1 -"- traktor	Horváth János fhdgy. 59. mű. zj. 1/3 pk.	Működik.	
4.sz.		32.18v.e. törzs e. tüzérség		tü. e. 1-2, ütege.		12. ho. törzs. 19x tü. o. hir. zj. feld. hd.	N2P. hadi híd. 1/3 N2P. T. anyag. 2 db ÁVH. mosó 4 db motorcsónak 2 db traktor.	Bednár János őrgy. 14. mű. zj. pk-a		
5.sz. →										
6.sz. →										
7.sz. →										
8.sz. →										
9.sz. [30']										

Minta

Minta

Minta

Minta

Készült: 3. példányban
1. sz. péld. Ho. mű. f. nél
2. sz. péld. Ho. mű. zj-nál
3. sz. péld. Ho. T. irodán
Készítette: 12.18v.ho. mű. főnök

AAA Protection of the Crossing

All the activities of the enemy will be directed at destroying the crossing -- to discover the location of the bridge and to destroy it with artillery or planes. Fifty percent of the division's AA artillery battalion must be employed for protecting the bridge.

25X1

The Mission and organization of the Obstacle Laying Detachment /M.Z.O./ 25X1

Mission:

1. Engage in counterattack (with anti-tank artillery reserves)
2. Laying blockades and obstacles
3. Ensuring the security of flanks and connections
4. Reinforcing the acquired sector

Its Composition:

Division - 1-2 engineer companies

Regiment - 1-2 platoons

Army Corps - 1-2 battalions

Equipment of the Obstacle Laying Detachment at Division Level

750 anti-tank mines

500 anti-personnel mines

1 ton of explosive materials

2.5 ? tons of barbed wire

25 reels of wire

12 sets of mine planting equipment

12 mine skids

12 mine charges

2 mine-clearing tanks

1 armored command car

12 transport vehicles

1 signal device

Reserve: 25% of all materials

Organization, Equipment, and Materials of the M.B.O. (Mozasbiztosito Osztag, Movement Security Detachment)

Organization:

At division - 1-2 Pioneer companies

At Regiment - 1 Platoon

At Corps - 1-2 Battalions

Equipment:

2 sets of mine detecting equipment

25 Running meters of military bridge supplies

12 Camouflage nets (10 x 24 meters)

6 Camouflage nets (4 x 6 meters)

Road construction materials, markers and signs:

1 Road grader

1 Excavator

1 Bulldozer

2 Winches

1 Small pile-driver

1 Ton of explosives

Fuses, detonating cords

1 Armored command car

18 Csepel - 350 transport vehicles

2 Caterpillar tractors

1 Wheeled tractor

Mission of the "M.B.O."

The movement security detachment moves ahead of the troops with the reconnoiterers to secure the forward movement of the troops - it maintains contact via liaison and radio.

Mission:

Establishment of by-passes for bombed-out roads

Establishment of detours around bombed-out roads

Bridging of bomb craters

Removal of mines from roads

Bridging of swampy terrain

Building of roads

Repairing bombed bridges and building new bridges

Reinforcing existing bridges

Bridging of smaller obstacles (up to 25 running meters)

Removal of trees from the roads

Preparing rest areas

Aiding artillery to advance

Helping caterpillar vehicles to surmount obstacles

The strength of the Movement Security Detachment is always determined by the number of roads. If the division advances on two roads, then the security detachment is organized in two companies - 1st and 2nd.

Engineer Information Report for the Crossing
Kalocsa Danube and Dunaszentbenedek 1:50,000

1. Enemy Situation:

Location of enemy positions according to the map

Location of bases and artillery

Location, numbering, and weapons of fortifications

Arrangement of obstacles

Designation of unit sectors and contacts

Command posts and observation posts

Artillery positions

Zones of fire

Supply areas

Location of reserves

Engineer's strength and equipment - nature and location of activity

Obstacle arrangement along river bank- location of river mines

Air "deszant" zones

Location of decontamination stations

Road network

2. Friendly Situation

Deployment of troops in the assembly area

Engineering equipment of the assembly area

Identification of adjacent troops and their missions

Designation of command posts and observation posts

Area for engineering forces and materials

Deployment of support and subordinate troops

Deployment of artillery troops

/Designation of/ unit lines of responsibility and communication lines

Communication lines

Arrangement of engineering obstacles

Deployment of movement Security Detachment, anti-tank defense, and reserve artillery.

Location of the Division's decontamination station

Location of reserve materials

Conclusion:

A conclusion is formulated by considering the enemy and friendly position.

3. Road Conditions:

Marking the road network of the enemy territory and friendly territory.

4. Concealment:

The concealment possibilities existing in the enemy and friendly territory.

5. Soil Conditions:

Evaluation of the soil conditions of the enemy and friendly terrain.

Conclusion.

6. Available Forces:

Rifle forces

25th rifle regiment	3,500 men
32nd rifle regiment	3,500 men
34th rifle regiment	3,500 men
Artillery regiment	1,500 men
43rd armored regiment	1,200 men
37th AAA detachment	780 men
Signal battalion	320 men
12th Division Staff and personnel	270 men

Available: 14,570 - 15,000 men

Engineer Forces

59th Independent Eng. Bn.	3 Eng. Co.	110/3	= 330 men
37th po.dd? 4 Bridge Building Bn.	3 Bridge Co.	110/3	= 330 men
25th Rifle Regiment Eng. Co.	1 Eng. Co.	110	= 110 men
32nd " " " "	1 " "	110	= 110 men
34th " " " "	1 " "	110	= 110 men
43rd Armored " " "	1 " "	110	= 110 men
Artillery " " "	1 " "	110	= 110 men
	11 Engineer Pioneer Co.		= 1,210 men

$\frac{1210 \times 10}{12{,}100}$ man-hours

1 Man-hour with 10 hours of work

Available - 12,100 Man-hours

or: 66 Engineer Company Workdays

$\frac{11}{66}$ X 6 days = 66 Company workdays

or: 11 X 3 = 33 X 6 = 198 platoon workdays

Engineer mission during the preparatory period:

Engineer reconnaissance	- 1	engineer	platoon				
Preparation of assembly area	- 1	"	Co.	= 6	engineer	Co.	workdays
Construction of Div. Hq. CP	- 1	"	"	= 5	"	"	"
Equipping of the water point (3 units)	- 1	"	"	= 3	"	"	"
Preparation of training area (2 units)	- 1	"	"	= 6	"	"	"
Road repair (25 km.)	- 1	"	"	= 2	"	"	"
Camouflaging (3?)	- 1	"	"	= 1	"	"	"
Bridge building (75 running meters)	- 1	"	"	= 9	"	"	"
Organization of M.Z.O. [obstacle detachment]							
Organization of assault troops							
Preparation of materials							
		7	engineer	Co.	32	engineer	Co. workdays

Important Engineer Norms

Type of Work	Quantity	Unit Company Platoon	Company Workday Platoon Workday
Preparation of fire trenches	1 km.	1 engineer Co.	1 day
Obstacle laying:			
single wire	1 km.	1 " "	1 "
double wire	1 km.	1 " "	3 "
Mine laying:			
anti-tank mine			
not under fire	750	1 " "	1 "
anti-personnel mine			
not under fire	500	1 " "	1 "
Mine removal			
anti-tank mine			
not under fire	1,000	1 " "	1 "
under fire	500	1 " "	1 "
anti-personnel mine			
not under fire	2,000	1 " "	1 "
under fire	1,000	1 " "	1 "
Camouflaging	1-3 km.	1 " "	1-3 "
	1 division?	1 " "	1 "
Construction of command post			
Division Hq.	1 unit	1 " "	3-5 "
Regiment Hq.	1 unit	1 " "	1-3 "
Bridge construction			
Required material	15 running meters 30 ton	1 " "	1 "
	25 running meters 40 ton	1 " "	3 "
Water point construction	1-3 units	1 " "	1 "
Training area preparation	3 units	1 " "	3 "
Road repair	1-10 km.	1 " "	1 "
Road construction	1 km.	1 " "	4-5 "
Preparation of assembly area	1 division	1 " "	5-6 "
Engineer reconnaissance	at division	1 " " platoons	

Available

11 units engineer Co. = 66 engineer Co. workdays

Required 7 " " " = 32 " " "

25% 3 " " " = 16 " " "

Engineer mission during the combat period:

Engineer reconnaissance	- 1 engineer platoon	
Engineer preparation of departure area	- 3 engineer Co.	= 2 engineer Co. workdays
Organization of assault troops (3 units)	- 3 "	"
Organization of obstacle detachment (2 units)	- 2 "	"
Equipping of crossing point	- 2 "	"
Support of first echelons	- 1 "	"
Artillery preparation	- 1 "	"
Tank preparation	- 1 "	"
Equipping the ferry crossing points	- 2 "	"
Organization of reserves 25%	- 1 "	"
Organization of water point (1 platoon - 3 units)	- 1 "	"
Organization of Movement Security Detachment (2 units)	- 2 "	"
	20 engineer Companies	

Available: 11 engineer companies

Required : 20 " "

Remainder: 0 " "

Conclusion:

During the period of combat preparations there are sufficient engineer forces.

Nine additional engineer companies will be needed during the period of combat, so that the attack can be assured proper engineer support.

9. Computation of Engineer Materials

Designation	KFP ? Bridge ?	Anti-tank Mines	Anti-personnel Mines	Explosives tons	Barbed Wire tons	Wire Roll R. Meters	Anti-mine Tanks
59th Eng. Bn.	1	5,000	10,000	5	3.5	1,250	2
37th po? Bridge Construction, 4th Bn.	1						
25th Rifle Regiment Eng. Co.	1/3	250	150	1	1	250	
32nd " " " "	1/3	250	150	1	1	250	
34th " " " "	1/3	250	150	1	1	250	
43rd Armored " " "	1	500	250	1	1	250	
Artillery " " "	1	500	250	1	1	250	
Division Warehouse		15,000	20,000	10	5	15,000	
Total	4	21,750	30,950	20	13.5	17,500	2

Designation	Amphibian ?	Assault Boats Small	Rubber Boats Small	Rubber Boats Large	Rubber Boats Medium	DSZL?	"N-P" Bridge ?
59th Eng. Bn.	2/2/2	18	6	6	6	12	1
37th po? Bridge Construction, 4th Bn.	2/2/2	24	12	9	12	24	1
25th Rifle Regiment Eng. Co.		2	1	1	1	2	
32nd " " " "		2	1	1	1	2	
34th " " " "		2	1	1	1	2	
43rd Armored " " "		2	1	1	1	2	
Artillery " " "		2	1	1		2	
Division Warehouse		20	26	26	26	30	
Total	4/4/4	72	49	46	48	76	2

Distribution of Engineer Materials - for the Attack Period

Engineer Assignments	KFP ? Military Bridge	Anti-tank Mines	Anti-personnel Mines	Explosives tons	Barbed Wire tons	Wire Roll Running m.
Engineer Reconnaissance						
Organization of M.Z.O. (1 unit)		750	500	1	2.5	250
Organization of M.B.O. (2 units)	25 R. meter			1		
Preparation of Assembly Area		2500			3	2100
Organization of Assault Troops (3 units)				4		3500
Aid Advance of 1st Echelons	1/3	2500	1000	1	1.5	1500
Aid Advance of Artillery	1/3	2500	1000	1	1.5	1500
Aid Advance of Tanks	1	2500	1000	1	1.5	1500
Equipping of Ferry Crossing Point (2 units)						
Equipping of "Deszant" Crossing Point (1/6 unit)						
Equipping of Water Point (3 units)						
Division Bridge (1 unit)	1					
Required Total	1 KFP	10750	3500	9	10	10350
On Hand	4	21750	30950	20	13.5	17500
Remainder	3	9790	27450	11	3.5	6150

25% Reserve

Distribution of Engineer Materials - for the Attack Period (cont'd.)

Engineer Assignments	Anti-mine Tanks	Amphibian ?	Assault Boats	Motorboat A.V.M.	Rubber Boat Small	Rubber Boat Medium	Rubber Boat Large
Engineer Reconnaissance							
Organization of M.Z.O. (1 unit)	2	2	2		2	2	2
Organization of M.B.O. (2 units)		2	2		2	2	2
Preparation of Assembly Area							
Organization of Assault Troops (3 units)	1	2/2	4		4	4	4
Aid Advance of 1st Echelons	2						
Aid Advance of Artillery	2						
Aid Advance of Tanks	2						
Equipping of Ferry Crossing Point (2 units)		1	2	1			2
Equipping of "Deszant" Crossing Point (1/6 unit)		2/12	6/36	2/12	2/12	2/12	2/12
Equipping of Water Point (3 units)							
Division Bridge (1 unit)			2	1	2	2	
Required Total	7	21	48	14	22	22	22
On Hand	2	16	72		49	46	48
Remainder	5	5	24		27	24	22

25% Reserve

Distribution of Engineer Materials - for the Attack Period (cont'd.)

Engineer Assignments	DSZL?	CS-350 Tractor	T-250 Tractor	Note
Engineer Reconnaissance				
Organization of M.Z.O. (1 unit)	6	12		+25% Reserve
Organization of M.B.O. (2 units)	6	18	3	1 Grader 1 Excavator 1 Bulldozer
Preparation of Assembly Area				
Organization of Assault Troops (3 units)	12	14		1 Rifle Co. 1 Artillery Engineer 1 Tank Co.
Aid Advance of 1st Echelons		5	1	
Aid Advance of Artillery		5	1	
Aid Advance of Tanks		5	1	
Equipping of Ferry Crossing Point (2 units)	2		1	$\frac{1}{2}$ N^{2}P?
Equipping of "Deszant" Crossing Point (1/6 unit)	2/12		2	
Equipping of Water Point (3 units)				
Division Bridge (1 unit)			2	
Required Total	40		11	2 N^{2}P?
On Hand	76			N2P.2?
Remainder	36			0

25% Reserve

10. Organization of the M.Z.O. [Obstacle Laying Detachment]

Strength: 1 Engineer or 2 Engineer Companies

Commander: 1st. Lt. Janos Nemet, Commander 3rd Co., 59th Engineer Bn.

Location: Kalocsa Danube 45a/64b 1:50,000

Mission: Enter combat with the reserve anti-tank artillery.

Cross the river.

Contact with radio: 350, 350, 350 cycles.

11. Organization of the M.B.O. [Movement Security Detachment]

Strength: 2 Engineer Companies

Commander: 1st Lt. X Y ?, Commander 2nd Co, 59th Engineer Bn.

Location: (according to map)

Mission:

Supplies: (according to plan)

12. Engineer Reserves

Strength: 1 Engineer Co., 1 Engineer Co. of the 59th Engineer Bn.

Commander: Lt. Mihaly Nyegre

Location: (according to map)

Mission: Remains subordinate to the division commander and stands ready to:

- Build the division command post
- Build the division observation post
- Set up obstacles and lighting

Meaning of "Cs"

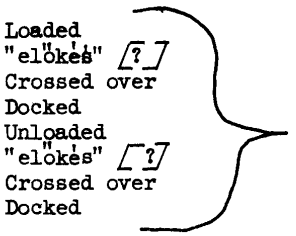
"Cs" establishes the time of attack - when the attack is to get underway.

"Cs +" indicates activities after the attack and

"-Cs" activities prior to the attack.

Meaning of "Fordulo"

"Fordulo" is the term used when the following has been done to the crossing equipment:



[Meaning of elökés not clear; may be "ellökés" - to "shove off"]

Sum total equals "Fordulo"

Additional factors are ?

The type and speed of the vehicle

Speed of current

The number of drift lines

"Fordulo" = $\frac{m}{n} + \frac{k}{e} ; \frac{s}{p}$ =

m = speed of the vessel

n = speed of current

k = number of drift lines

e = width of river

s = /downstream/ drift

p = factor (5)

Sketch

for Division's crossing

the Attack

Tasks	Preparation Stage	Commanders' Names	Combat Stage	Commanders' Note Names
Reconnaissance of Assembly Area	59th. Engineer Bn.	Capt. Istvan Bakos?		
" " Departure "	59th Engineer Bn.	Capt. Istvan Bakos?		
Engineer Reconnaissance	59th Engineer Bn. 1/1 Platoon	Lt. Peter Horvath	Continuous	
Organization of "M.2.O."	59th. Engineer Bn. 2nd. Co.	1st. Lt. Istvan Szucs	Continuous	
Organization of "M.B.O."	59th. Engineer Bn. 3rd Co.	1st Lt. Peter Kis	Continuous	
Organization of Assault troops	25th Rifle Bgt. 1st Co. 1st. Bn 32nd " " " " " 34th " " " " " 43th Armor " 1st. " 1st. Co.? Artillery " 1st. Arty. Detachment	Capt. F. Szallosi Maj. L. Nemeth Capt. F. Szillagyi	Continuous	[NOTE: "po" abbreviation not identified, but else "dd" probably means "brigade."]
Equipment of "Peasant" Crossing Point (6 units)			1st Plat. 37 "po dd" 1st Bn. 1st Co.	Lt. M. Nemeth
			2nd " " " 2nd Co.	Lt. F. Szitta
			3rd " " " 3rd "	Lt. ? Horvath
			4th " " 2nd Bn. 1st "	Lt. P. Kis
			5th " " " 2nd "	Lt. L. ?
			6th " " " 3rd "	Lt. ? Nemes
Equipment of Ferry Crossing Point (2 units)			2nd Plat. 37 "po dd" 3rd Bn. 1st Co.	1st Lt. ? L. Szepes?
			10th Plat. . 2nd Co.	1st Lt. ? F. Levai

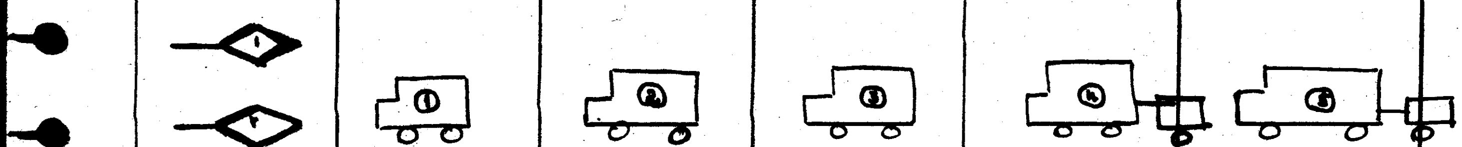
...számvetés a munkára vonat... SECR...

...rehajtandó munkák.	a támadás: Előkészítő időnak	Pk-ok nevei.	Harcállati időnak.	Pk-ok nevei	Megjegyz.
...p. ks. mű. berendezése	59. mű. zászlóalj	Balogh Zoltán szd.			
...indulási ks. berendezése	59. mű. zászlóalj.	Balogh Zoltán szds.			
...felderítés	59. műü. zj. 1/1 szak.	Horváth Péter hdgy.	Folyamatos		
...O. szervezése	59. műü. zj. 2. szd.	Szűcs Zoltán fhdgy.	Folyamatos		
B.O. szervezése	59. mű. zj. 3. szd.	Kis Péter fhdgy.	Folyamatos		
Harcsop.-tok szervezése.	25 löv. e. 1 zj. 1 szd.-a 32 löv. e. 1 zj. 1 szd.-a 34. löv. e. 1 zj. 1 szd.-a 43 pc. e. 1 zj. 1 szd.-a tü. e. 1. o. 1 ü.-e	3. Szabó F. szds Német G. őrgy Szillágyi F. szds	Folyamatosan		
DT ...lési pontok berend. (6 db)			1. e. 37. po. dd. 1 zj. 1. szd. 2. e. 3. e. 2 szd. 4. e. 3 szd. 5. e. 2 zj. 1 szd. 6 e. 2 szd. 3 szd	Német M. hdgy. Kiss L. hdgy. Horváth I. -"- ... R. -"- ... G. hdgy. ... I. fhdgy.	
...p. átkelőpont berendezése (2 db.)			1 e. 37. po. dd. 3 zj. 1 szd. 2 e. 2. szd.	Sepsi L. fhdgy. Gál L. fhdgy.	

Organization of the
M.Z.O. [Obstacle Laying Detachment]

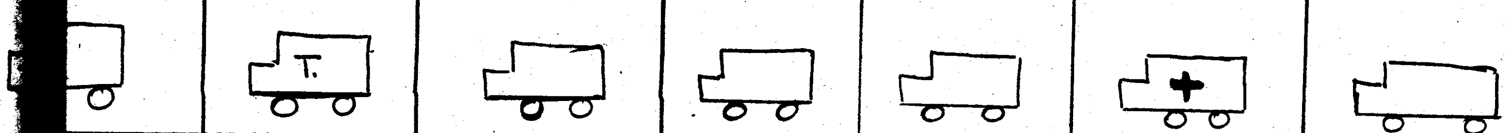
Reconnaissance Sub-group	Mine Demolition sub-group	Obstacle Removal sub-group	Mine salvage sub-group	Transport vehicle	Transport vehicle	Transport vehicle
1-5 Engineers 2 ? 1 ? ? ? ? Mine detector Probing stick Telescope Compass 1- Radio R-10	2 mine demolition Tanks	Explosives Fuse Winch	Probing stick Mine detector Explosives Marking Equipment	250 anti-tank mines	250 anti-tank mines 1-enlisted mens' kitchen	250 anti-tank mines 1-enlisted mens' kitchen

M.I.O [illegible]



...derítő alcsoport	Akna robbantó alcsoport (kk.)	Akadály elhárító alcsoport	Akna mentesítő alcsoport	Szállító gk.	Szállító gk.	Szállító gk.
1.	2.	3.	4.	5	6	7
...fő mű. ...fő. tv. ...db gk. gpl. Kgr. ...kutató ...ro bót ...vasó ...jolo ...db R-10 rádió	2. db. akna-robbantó kk.	- robbanó ag. - gyutacs - csörlő	- suro bót - aknakutató felszerelés - robbanó ag. jelző eszközök	250 db kk. akna	250 db kk. akna 1. db. legénységi konyha	250 db kk. akna. 1 db. legénységi konyha.

Transport Vehicle	Transport Vehicle	Transport Vehicle	Transport Vehicle	Transport Vehicle	Ambulance	Transport Vehicle
500 anti-personnel mines	25% Reserve materials	12 - skids 12 - mine planting equipment 12 - mine charges (rod)	25 [tons?] of Barbed wire 25 - reels of wire rollers?	1 ton of explosives (trail?)	1 medical aide 1 Hygeine EM	Fuses



Sz[illegible]llító gk.	Szállító gk.	Szállító gk.	Szállító gk	Szállító gk.	Mentő gk.	Szállító gk.
[illegible]	7	8	9	10	11	12
5[illegible] db [illegible]gazdasági [illegible]kna.	25% Tartalék ag.	12 db csuzda 12 db akna- telepítő felszerel. 12 db akna- töltet (rud)	2 t. tüskésdrót 25 tekercs drót henger	1 t robb. ag. (trotil)	1 fő ths. felcser 1 fő eü. honv.	Agyulocsak